

Application No. 10/685,776
Amendment dated March 3, 2006
Reply to Office Action of February 24, 2006

REMARKS

Applicant cancelled claim 2 without prejudice or disclaimer of its subject matter, amended claims 1, 3-5, 31, and 90, and added new claims 139-144 to further define Applicant's claimed invention.

In the Office Action, the Examiner rejected claims 1, 2, 9, 10, 14, 15, 21-27, 29, 31, and 40 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 3,875,595 to Froning ("Froning"). Independent claim 1, as now amended, recites "moving the instrument along the longitudinal axis of the instrument to form an opening into the vertebra." Froning teaches removing a portion of the spinal disc with forceps 36. (Froning, col. 2, lines 52-57; Fig. 2). Froning does not teach forming an opening into the vertebra with forceps 36. Froning then teaches that a second forceps 38 with fitted ends 39 is used to insert socket members 41 into the adjacent vertebrae. (Froning, col. 2, lines 58-66; Fig. 3). Second forceps 38 of Froning is not moved along the longitudinal axis of second forceps 38 to embed socket members 41 into the surface of the adjacent vertebrae. (See, Froning, col. 2, lines 64-66; Fig. 3). Froning does not teach or suggest moving an instrument along the longitudinal axis of the instrument to form an opening into the vertebra as recited in independent claim 1 of Applicant's claimed invention.

Independent claim 31, as now amended, recites positioning the one end of the guard onto the exterior surface of the vertebra "with the passage of the guard overlapping a portion of the vertebra," and "forming, through the passage of the guard, an opening at least in part into the portion of the vertebra overlapped by the passage of the guard," and "inserting a biomaterial through the passage of the guard and into the opening formed in the vertebra." In Froning, the opening formed into the vertebra is not in a portion of the vertebra overlapped by the passage of the Froning tube through which socket member 41 is inserted. (See Froning, Fig. 3). Froning does not teach or

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suggest forming an opening at least in part into the portion of the vertebra overlapped by the passage of the guard as recited in independent claim 31 of Applicant's claimed invention. Applicant submits that the Examiner's rejection of claims 1, 2, 9, 10, 14, 15, 21-27, 29, 31, and 40 under 35 U.S.C. § 102(b) as being anticipated by Froning has been overcome.

The Examiner rejected claims 3-6, 8, 32-35, 38, 39, 45-73, 75, 86-90, 95-100, 103-109, 111, and 130-136 under 35 U.S.C. § 103(a) as being unpatentable over Froning in view of U.S. patent No. 3,848,601 to Ma ("Ma"). Applicant submits that the rejection over dependent claims 3-6, 8, 32-35, 38, 39, and 45-66 are rendered moot at least because they depend from an allowable independent claim, or claims dependent therefrom. Applicant respectfully traverses the Examiner's rejection of claims 67-73, 75, 86-90, 95-100, 103-109, 111, and 130-136.

Applicant submits that the Examiner's combination of Froning and Ma does not teach or suggest a method as claimed by Applicant. Independent claims 67 and 103 each recite providing a first instrument that extends through the tubular member, forming an opening into the vertebra with a first instrument, removing the first instrument, and "inserting a second instrument through the tubular member and into the opening" which is used to enlarge the opening formed by the first instrument. Ma teaches reaming out material with a drill and using a curette to scrape out material not reamed by the drill to match the shape of the intervertebral block. (Ma, col. 5, lines 50-64). Contrary to the Examiner's assertion, there is no disclosure in Ma to use the curette through the same tube used for drilling. In fact, Ma suggests that material is removed by a curette "under direct vision" so as to "make certain that all disc, as well as fibrocartilaginous materials are removed down to bleeding cancellous surfaces." (Ma, col. 5, lines 64-68).

Neither Froning nor Ma, whether alone or in proper combination, teach or suggest inserting a second instrument through the tubular member that is used to

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enlarge the opening into the vertebra formed by the first instrument. Applicant respectfully submits that the Examiner's rejection of claims 67-73, 75, 86-90, 95-100, 103-109, 111, and 130-136 under 35 U.S.C. § 103(a) as being unpatentable over Froning in view of Ma has been overcome.

The Examiner rejected claims 7, 11-13, 17-20, 28, 30, 36, 37, and 41-43 under 35 U.S.C. § 103(a) as being unpatentable over Froning in view of U.S. Patent No. 4,501,269 to Bagby ("Bagby"); rejected claims 74, 76-80, 83-85, 92-94, 101, 102, 110, 112-116, 119-126, 128, 129, 137, and 138 under 35 U.S.C. § 103(a) as being unpatentable over "the claims" as applied above and further in view of Bagby; rejected claims 16 and 44 under 35 U.S.C. § 103(a) as being unpatentable over Froning in view of U.S. Patent No. 4,878,915 to Brantigan ("Brantigan"); rejected claims 81, 82, 91, 117, 118, and 127 under 35 U.S.C. § 103(a) as being unpatentable over Froning, Ma, and Bagby, further in view of Brantigan. Applicant submits that the rejections over claims 7, 11-13, 16-20, 28, 30, 36, 37, 41-44, 74, 76-85, 91-94, 101, 102, 110, 112-129, 137, and 138 are rendered moot at least because they depend from an allowable independent claim, or claims dependent therefrom.

Applicant submits that independent claims 1, 31, 67, and 103 are patentable and that dependent claims 3-30, 32-66, 68-102, and 104-144 dependent from one of independent claims 1, 31, 67, and 103, or claims dependent therefrom, are patentable at least due to their dependency from an allowable independent claim.

In view of the foregoing remarks, it is respectfully submitted that the claims, as amended, are patentable. Therefore, it is requested that the Examiner reconsider the outstanding rejections in view of the preceding comments. Issuance of a timely Notice of Allowance of the claims is earnestly solicited.

To the extent any extension of time under 37 C.F.R. § 1.136 is required to obtain entry of this reply, such extension is hereby respectfully requested. If there are any fees due under 37 C.F.R. §§ 1.16 or 1.17 which are not enclosed herewith, including

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any fees required for an extension of time under 37 C.F.R. § 1.136, please charge such fees to our Deposit Account No. 50-3726.

Respectfully submitted,

MARTIN & FERRARO, LLP

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By: 

Thomas H. Martin
Registration No. 34,383

1557 Lake O'Pines Street, NE
Hartville, Ohio 44632
Telephone: (330) 877-0700
Facsimile: (330) 877-2030